Introduction to Transportation Engineering - Video course

Modes of Transportation, their importance and limitations, the importance of highway transportation

Introduction to
- Road Development Plans
- Various Highway Developmental Projects like Golden Quadrilateral and East-West & North South Corridors under NHDP, PMGSY etc.
- Road Development Organisations
- Financing of Road Projects – Past and Present Trends

Stages in the Preparation of Project Report: Prioritization, Feasibility Studies, Preparation of Preliminary and Detailed Project Reports

Elements of Traffic Engineering: Fundamentals of traffic flow, traffic studies, concept of Capacity and Level of Service, Travel Demand Forecasting for Highways, design of signalized intersections

Highway Alignment Study: Controls for selection of Alignment, Engineering Surveys

Geometric design of highways: cross-sectional elements, horizontal and vertical alignments

Geometric Design of Intersections – rotaries etc.

Pavement Materials: functions, specifications and evaluation, Bituminous mix design

Pavement Design: Flexible and rigid pavements, principles of design, empirical and analytical design procedures.

Pavement Construction: embankment, subgrade, subbase and base courses, bituminous surface courses

Internal and surface drainage of pavements

Pavement Evaluation, Maintenance and strengthening.